Late Reports for Table 2.

Altitude (meters) m. s. l.	MAY 1942 Boise, Idaho (866 m.)			APRIL 1942 Chicago, Ill. (192 m.)			Altitude (meters) m. s. l.	MAY 1942 Boise, Idaho (866 m.)			APRIL 1942 Chicago, Ill. (192 m.)		
	Observations	Direction	Velocity	Observations	Direction	Velocity		Observations	Direction	Velocity	Observations	Direction	Velocity
Surface	30	324	2.6	29	186	1.5	2,500	27	271	2.8	22	271	5.9
500				29	191	2.7	3,000	22	255	2.9	20	286	6.6
1,000	30	314	2.8	29	205	3.7	4,000	18	239	4.8	17	310	8.9
1,500	30	299	3.4	27	223	3.5	5,000	15	275	5.7	14	321	10.8
2,000	29	285	3.5	24	258	4.8	6,000	12	290	7.3	13	329	13.7

TABLE 3.—*Maximum free-air wind velocities (m. p. s.) for different sections of the United States based on pilot-balloon observations during June 1942*

Section	Surface to 2,500 meters (m. s. l.)					Between 2,500 and 5,000 meters (m. s. l.)					Above 5,000 meters (m. s. l.)				
	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station	Maximum velocity	Direction	Altitude (m.) m. s. l.	Date	Station
Northeast [1]	31.0	NNW	1,900	5	Hartford, Conn.	32.0	WSW	4,600	23	Boston, Mass.	56.8	NW	7,120	20	Boston, Mass.
												WNW	11,950	15	Kylertown, Pa.
East-Central [2]	34.7	W	2,500	13	Nashville, Tenn.	39.6	WSW	4,280	24	Richmond, Va.	49.0	W	12,820	14	Nashville, Tenn.
Southeast [3]	23.4	WNW	2,500	13	Atlanta, Ga.	29.0	WNW	3,460	13	Atlanta, Ga.	43.5	NW	16,560	18	Miami, Fla.
North-Central [4]	45.7	W	1,790	21	Duluth, Minn.	35.8	WSW	4,090	12	Marquette, Mich.	58.0	W	8,850	17	Huron, S. Dak.
Central [5]	33.2	SW	1,580	26	Dodge City, Kans.	33.8	WNW	4,350	22	DesMoines, Iowa.	44.3	WSW	12,130	14	St. Louis, Mo.
South-Central [6]	31.4	SE	2,490	21	Big Spring, Tex.	34.9	SE	2,670	21	Big Spring, Tex.	43.0	WSW	13,260	16	San Antonio, Tex.
Northwest [7]	38.5	WNW	1,510	19	Billings, Mont.	33.8	W	4,060	16	Billings, Mont.	58.0	W	8,770	----	Great Falls, Mont.
												W	9 040	17	
West-Central [8]	28.8	W	2,500	12	Grand Junction, Colo.	48.4	WSW	4,410	11	Casper, Wyo.	68.8	W	10,630	19	Reno, Nev.
Southwest [9]	38.5	WSW	2,470	27	Winslow, Ariz.	38.5	WSW	3,370	27	Winslow, Ariz.	79.2	WSW	9 130	27	Winslow, Ariz.

[1] Maine, Vermont, New Hampshire, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, Pennsylvania, and northern Ohio.
[2] Delaware, Maryland, Virginia, West Virginia, southern Ohio, Kentucky, eastern Tennessee, and North Carolina.
[3] South Carolina, Georgia, Florida, and Alabama.
[4] Michigan, Wisconsin, Minnesota, North Dakota, and South Dakota.
[5] Indiana, Illinois, Iowa, Nebraska, Kansas, and Missouri.
[6] Mississippi, Arkansas, Louisiana, Oklahoma, Texas (except El Paso), and western Tennessee.
[7] Montana, Idaho, Washington, and Oregon.
[8] Wyoming, Colorado, Utah, northern Nevada, and northern California.
[9] Southern California, southern Nevada, Arizona, New Mexico, and extreme west Texas.

RIVER STAGES AND FLOODS

By Bennett Swenson

Precipitation during June was above normal throughout the country except for a few scattered areas. The greatest exception was the far Southwest where a large area, for the second consecutive month, received little or no precipitation. The driest states for the two months of May and June were Arizona and New Mexico. On the other hand, the Plains States had an abundance of rain during June, and for the first 6 months of the year precipitation was generally well above normal in this area.

Extensive floods occurred in the Plains States from South Dakota to Texas from frequent, and at times heavy, rains; and local floods resulted in northern New England from unusually heavy thundershowers near the middle of the month. The Missouri River from Blair, Nebr., to its mouth and most of the Mississippi River above Cairo, Ill., were in flood. The Mississippi and Missouri River floods combined at St. Louis to produce unusually high stages between that point and Cairo, Ill.

Atlantic Slope drainage.—High stages occurred in the Presumpscot, Androscoggin and Kennebec River Basins in Maine as the result of rainfall of high intensities during the period June 14–18. The storm occurred in two phases, causing two crests on most streams. The peak stages were not unusually high but damage was caused in some sections by the heavy rainfall and resultant floods, especially to crops and highways.

Intense rainfall on the afternoon and evening of June 14, in the upper Connecticut and Merrimack River Basins produced unusually rapid rises in some of the tributary streams in New Hampshire. In the Connecticut Basin, Oliverian Brook, between Glencliff and East Haverhill, N. H., overflowed causing severe damage to highways and bridges and Mascoma River flooded the streets of Canaan, N. H. The upper reach of the Connecticut River, immediately below Pittsburgh Reservoir overflowed causing damage to the extent of $40,000. At Hartford, Conn., the river rose 7 feet above the stage on the 15th, reaching a crest of 10.2 feet on the 18th.

In the Merrimack River Basin above Nashua, N. H., rains beginning about 3 p. m., June 14, and continuing for 12 hours averaged 3.75 inches. The greatest amounts were concentrated in the Bakers River Valley and in the upper portion of Smith River, where over 8 inches of rain occurred, resulting in serious flooding in these rivers. At Rumney, N. H., Bakers River reached a peak stage of 15.5 feet on June 15, exceeding the floods of March 1936 and September 1938 and second only to the flood of 1927 at that station. The Pemigewasset River was in moderate flood at and above Plymouth, N. H. Elsewhere in the Merrimack Basin, flows did not reach flood proportions. Damages, the greater part of which occurred in the Bakers River area, have been estimated at $53,000.

In the remainder of the Atlantic Slope drainage, showers on June 14 in the upper Susquehanna River Basin were sufficiently heavy to raise that river slightly above flood stage at Oneonta, N. Y., and heavy showers on June 10–11 over the Roanoke River Basin caused slight flooding at Randolph, Va., and Weldon, N. C., but stages were not sufficiently high to cause damage.

East Gulf of Mexico drainage.—The only flooding reported during the month was at Centerville, Ala., on the Cababa River, where a stage of 30.8 feet occurred on June 13. The damage was negligible.

Ohio Basin.—Light flooding occurred in the White River and its tributary, the West Fork, between June 15 and June 30. The total damage from the flooding has been estimated at about $45,000, the greater part of which was to growing crops. The overflow resulted from frequent rains, which occurred on more than half of the days in the month and totalled from 7 to more than 10 inches for the month at stations in the area.

Upper Mississippi Basin.—Heavy rains over the upper portions of the Chippewa and Wisconsin River Basins caused moderate flooding in these streams on the first of the month. A series of rains beginning on June 7 and continuing to June 27, occurred over most of the Mississippi River area above Cairo, Ill., and produced moderate flooding in the Mississippi River from Winona, Minn., to just above the mouth of the Ohio River and in tributary streams in Minnesota, Wisconsin, Iowa, Missouri, and Illinois. A discussion of these floods will be given in a later issue of the REVIEW. The flood in the Missouri River, which is discussed below, combined with the flood in the upper Mississippi River to produce unusually high stages in the reach between St. Louis, Mo., and the mouth of the Ohio River. The crest at St. Louis was 34.3 feet on June 30, and 36.9 feet at Cape Girardeau, Mo., on July 2. A comparison of the crest stages in this flood with previous high stages is shown in the accompanying table.

The Tennessee and Ohio Rivers remained low throughout the month, a condition which decreased the flood height of the Mississippi in the vicinity of the Ohio River. Flood stage was not reached from this point downstream.

Missouri Basin.—Heavy rainfall during the first part of June in the Big Sioux and Floyd River Basins produced record high stages in those streams and resulted in extensive overflow and considerable damage in both basins.

In the Floyd River a crest of 18.8 feet occurred on June 5 at James, Iowa, surpassing the previous high stage of record, 18.1 feet in 1936. Upstream from this point, the river is said to have been as high or higher than in 1881, the greatest known flood in the Floyd River. In spite of the high water, the damage in Sioux City, Iowa, was negligible, due to recent channel improvements and construction of high levees. Above Sioux City the flood damage was mainly to crops, fields, dikes, fences, and roads.

In the Big Sioux River a stage of 19.3 feet at Akron, Iowa, was reached on June 4, 0.1 foot below the highest stage, in September 1926, when a high-water mark of 19.4 was established. The river spread out in some districts to a width of 3 miles and thousands of acres of farm land were under water.

The Republican River overflowed slightly on two occasions during the month, the first from June 12 to 15 and the second from the 24th to the 27th. In both cases, the flooding extended from slightly above Guide Rock, Nebr., to below Clay Center, Kans., and was confined only to very low places.

The other tributaries of the Kansas River, the Solomon, Saline, Smoky Hill and Blue Rivers, and the Kansas River itself, experienced moderate to rather serious floods with considerable damage, largely from flooded crops. The greater part of this damage occurred in the basin of the Kansas River, which overflowed from Manhattan to below Lawrence, Kans., except that bankful stages were not quite reached at Wamego, Kans. Crest stages in the Kansas River generally ranged from 1 to 2 feet above bankful. At Topeka, Kans., the crest was 22.5 feet on June 21, but protecting levees prevented any part of the city from being flooded.

The next most damaging overflow was along the Smoky Hill River from Ellsworth, Kans., to its mouth. At Lindsborg, Kans., a crest of 27.95 feet, 6.95 feet above bankful, was recorded on the 21st, and at Salina, Kans., a crest of 22.65 feet, 2.65 feet above bankful, occurred on the 23rd. The only city that suffered material damage was Salina, where a considerable part of the eastern section was flooded.

The floods in the Solomon and Big Blue Rivers were of minor importance.

In eastern Nebraska, heavy to excessive rainfall occurred on June 19–20 and flood stages prevailed in the Elkhorn River for a few hours at Norfolk on the 20–21st with a crest of 10.25 feet. There was some overflow at a few places above and below Norfolk but damage was mostly light. However, moderate damage occurred at a number of places in eastern Nebraska from flooding of small creeks and draws many of which are dry most of the time.

In the Grand, Osage, Gasconade and lower Missouri River Basins rains occurred on June 1–2, were almost continuous from the 5–19th, and were heavy on the 25th and 26th, causing moderate flooding in the Gasconade and Osage Rivers and severe flooding in the Grand and lower Missouri Rivers. Jerome, Mo., in the Gasconade Basin, recorded a total of 14.50 inches of precipitation for the month; Waverly, Mo., on the Missouri River, had 12.70 inches while other stations in this area had amounts generally in the neighborhood of 10 inches.

The Missouri River which was still at moderately high stages following generous rains during May rose to high stages again in June when heavy rains occurred over western Iowa, eastern Kansas and Nebraska and northern Missouri during much of the month.

The Missouri River first exceeded flood stage in the vicinity of Nebraska City, Nebr., on June 6 and from that date to the end of the month was in flood at most points downstream to its mouth. The river crested at Nebraska City on June 22 at a stage of 18.4 feet, the same as the record stage reached during the preceding month. The most serious overflow in this area was in Mills and Fremont Counties, Iowa, where considerable damage had occurred in May. Damage was moderate in Monona County, Iowa, near Onawa, and in Washington County, Nebr., near Blair where the river remained above flood stage several days, reaching 19.4 feet on June 10–11. Severe damage to crops was sustained in several counties immediately above and below Kansas City, due to creek overflows, and in the vicinity of Lexington, Mo. The crest stage at Kansas City was 24.2 feet on June 22 and 24.3 feet at Lexington, Mo., on June 27.

In the reach of the lower Missouri River below Kansas City, stages began a slow rise on June 7, reaching unusually high stages near the end of the month. On June 6, a series of rains began over this portion of the basin and from that date until the 27th, precipitation was reported daily from stations in the basin. The combination of high discharges from the Missouri above Kansas City and from the Kansas River, plus the heavy discharges from the Grand, Osage, and Gasconade Rivers, and other small tributaries, in the lower basin, produced unusually high stages in the extreme lower Missouri River, closely

approaching the highest stages of record. A comparison of the stages in this flood with the previous high stages of record is given in the accompanying table.

Arkansas-Red Basin.—Moderate floods occurred in the Verdigris, Neosho, Canadian and the main Arkansas River in the Arkansas Basin and in the Sulphur River in the Red Basin during the month.

The Arkansas River overflowed near Oxford, Kans., on June 21, extending to a short distance above Little Rock, Ark., near the end of the month. The flooding in the vicinity of Arkansas City, Kans., was severe although the city itself was protected by levees. The high stages in this area were caused by heavy rains in the Ninnescah and Walnut River Basins and over the Arkansas River above Arkansas City during the afternoon of June 20, producing rapid rises in the streams.

In the Cottonwood and Neosho Rivers, crest stages were generally 3 to 5 feet above bankful during the latter part of the month with the overflow lasting about a week.

The Canadian and Sulphur Rivers overflowed slightly during the second week of June.

West Gulf of Mexico drainage.—Several separate rises occurred in the Trinity River during the month as the result of a flood, which was in progress at the close of May, plus further heavy rains during June. The overflows were light to moderate and in general the crest stages in the May floods were higher than subsequent ones.

In the Rio Grande, the releases of water from Elephant Butte Reservoir decreased from 8,000 second feet on June 1 to 5,000 second feet on June 30. The water level in the Cabello Reservoir, immediately below Elephant Butte Dam, was lowered likewise, and by the end of the month the old river channel could accommodate all of the released water. June was a very dry month in this area and a considerable amount of water was used for irrigation purposes. As a result, practically all of the land that was flooded in the Candelaria-Presidio irrigated district was above water on June 30.

Crest stages for floods of June 1942 in Mississippi and Missouri River Basins and comparison with previous maximum floods

River and station	Previous maximum flood known				Crest stage during present flood	
	During period of record		Prior to gage records			
	Date	Crest stage	Date	Crest stage	Date	Crest stage
Mississippi Basin		*Feet*		*Feet*		*Feet*
Salt River: New London, Mo.	June 1928	28.8	----------	------	June 29	25.5
Mississippi River:						
Dubuque, Iowa	June 1880	21.7	----------	------	June 12	19.3
Keokuk, Iowa	May 1888	19.6	June 1851	21.0	June 16	15.8
St. Louis, Mo	June 1903	38.0	June 1844	41.4	June 30	34.3
Chester, Ill	April 1927	34.4	do	39.9	July 1	33.9
Cape Girardeau, Mo	do	40.0	July 1844	42.5	July 2	36.9
Missouri Basin						
Big Sioux River: Akron, Iowa.	March 1929	18.6	September 1926.	19.4	June 4	19.3
Floyd River: James, Iowa	March 1936	[1]18.1	----------	------	June 5	18.8
Grand River:						
Chillicothe, Mo	June 1929	32.1	July 1909	33.6	June 27	30.8
Brunswick, Mo	June 1935	20.5	do	23.0	June 29	21.8
Missouri River:						
Nebraska City, Nebr	May 1942	18.4	April 1881	18.0	June 22	18.4
Kansas City, Mo	June 1903	34.95	June 1844	38.0	do	24.2
Waverly, Mo	June 1935	22.0	----------	------	June 27	21.8
Boonville, Mo	June 1903	30.9	June 1844	32.7	June 29	27.5
Hermann, Mo	do	29.5	----------	------	June 28	29.4
St. Charles, Mo	do	36.8	June 1844	40.1	June 29	34.8

[1] Ice jam.

The extreme lower Rio Grande was slightly above flood stage at Mercedes and Brownsville, Tex., on June 27–28 but the water generally was confined within the levees.

Gulf of California and Pacific Slope drainages.—Stages continued high in the upper Colorado River, and some flooding occurred in the Gunnison River during the month, but there was no damage of consequence.

Streams were high during the first three weeks of June in the upper San Joaquin River Basin and in the Tulare Lake Basin. Kings River at Piedra, Calif., exceeded flood stage slightly, reaching a peak stage of 10.8 feet on June 10–12.

The Columbia River exceeded flood stage at Vancouver, Wash., from June 12–22, with a crest of 15.8 feet (flood stage 15 feet).

NOTE.—A complete report of the floods of April and May in the Missouri, Arkansas, Red and Trinity River Basins will be given in a later issue of the REVIEW. Data on flood losses and savings for floods during the period April–June have not been fully assembled. A tabulation of these data also will appear in a later issue.

FLOOD-STAGE REPORT FOR JUNE 1942

[All dates in June unless otherwise specified]

River and Station	Flood stage	Above flood stages—dates		Crest	
		From—	To—	Stage	Date
ATLANTIC SLOPE DRAINAGE	*Feet*			*Feet*	
Bakers: Rumney, N. H	7	14	15	15.5	15
Pemigewasset:					
Woodstock, N. H	8	15	15	9.0	15
Plymouth, N. H	11	15	15	13.7	15
Connecticut: North Stratford, N. H	10	16	16	10.0	16
Susquehanna: Oneonta, N. Y	12	15	16	14.0	15
Roanoke:					
Randolph, Va	21	12	12	21.3	12
Weldon, N. C	31	13	14	31.3	14
Williamston, N. C	10	[1]	2	10.9	May 30
EAST GULF OF MEXICO DRAINAGE					
Cahaba: Centerville, Ala	23	12	14	30.8	13
MISSISSIPPI SYSTEM					
Upper Mississippi Basin					
Chippewa:					
Holcombe, Wis	22	May 30	3	25.9	May 30-31
Durand, Wis	11	May 31	4	14.1	1
Zumbro: Theilman, Minn	35	May 29	2	37.3	1
Black: Galesville, Wis	12	1	3	12.6	2
		7	8	12.5	8
Wisconsin:					
Knowlton, Wis	12	May 30	2	18.65	May 31
		6	8	13.5	7
Wisconsin Rapids, Wis	12	1	1	12.2	1
Portage, Wis	17	3	6	18.4	4–5
Rock: Moline, Ill	10	14	15	10.05	15
Cedar: Waterloo, Iowa	12	4	4	12.2	4
Salt: New London, Mo	19	27	30	25.5	29
Bourbeuse: Union, Mo	12	23	24	13.2	24
		26	29	17.5	28
Meramec:					
Sullivan, Mo	11	21	22	12.6	22
		26	27	14.9	27
Pacific, Mo	11	May 31	2	16.8	1
		14	17	16.4	16
		23	23	14.0	23
		26	30	20.0	29
Valley Park, Mo	14	1	2	15.6	1
		15	17	16.0	17
		24	24	14.0	24
		26	[2]	21.9	29
Mississippi:					
Winona, Minn	13	3	6	13.2	4–5
La Crosse, Wis	12	3	10	13.0	5
Lansing, Iowa	18	----------	----------	14.3	9–10
Dubuque, Iowa	18	9	16	19.3	12
Gordons Ferry, Iowa	----------	----------	----------	17.4	12–13
Clinton, Iowa	16	10	19	17.8	13–14
Davenport, Iowa	15	13	16	15.2	14–15
Muscatine, Iowa	15	11	22	17.6	15
Keithsburg, Ill	12	11	22	14.05	15
Burlington, Iowa	15	14	19	15.5	16
Keokuk, Iowa	12	11	25	15.8	16
Gregory Landing, Mo	12	10	25	15.6	15–17
Quincy, Ill	14	11	26	17.7	17

See footnotes at end of table.

FLOOD-STAGE REPORT FOR JUNE 1942—Continued

River and Station	Flood stage	Above flood stages—dates From—	To—	Crest Stage	Date
MISSISSIPPI SYSTEM—continued					
Upper Mississippi Basin—Continued					
Mississippi—Continued.	*Feet*			*Feet*	
Hannibal, Mo	13	9	28	17.7	19
Louisiana, Mo	12	11	29	16.3	20
Grafton, Ill	18	19	(2)	21.7	29
St. Louis, Mo	30	23	(2)	34.3	30
Chester, Ill	27	21	(2)	33.9	July 1
Cape Girardeau, Mo	32	24	(2)	36.9	July 2
Missouri Basin					
James: Scotland, S. Dak.[1]	13			15.5	May 15
		May 14	May 17	13.6	May 16
Big Sioux: Akron, Iowa	12	May 28	10	19.3	4
		28	(2)	14.0	29
		May 29	May 31	14.2	May 29
		3	9	18.8	5
Floyd: James, Iowa	14	20	23	15.7	22
		29	(2)	16.8	30
Elkhorn: Norfolk, Nebr	10	20	21	10.2	21
Saline: Tescott, Kans	25	20	21	26.3	20
Solomon: Beloit, Kans	18	25	27	22.3	26
Smoky Hill:					
Ellsworth, Kans	20	19	19	20.7	19
Lindsborg, Kans	21	20	22	27.95	21
Salina, Kans	20	22	24	22.65	23
Enterprise, Kans	26	19	22	27.5	20
		24	27	28.45	25
Republican:					
Guide Rock, Nebr	10	12	14	10.8	13
		24	26	11.0	24
Scandia, Kans	10	13	13	10.0	13
		25	26	11.1	25
Concordia, Kans	8	13	14	8.5	13
		25	26	8.8	25
Clay Center, Kans	15	14	15	16.0	14
		25	27	16.4	26
Big Blue:					
Barnston, Nebr	18	20	20	21.1	20
Randolph, Kans	22	21	22	22.0	21–22
Kansas:					
Manhattan, Kans	17	20	23	18.0	20, 22
		25	28	18.5	27
Topeka, Kans	21	20	21	22.5	21
Le Compton, Kans	17	20	21	19.5	21
Lawrence, Kans	18	21	21	19.3	21
Thompsons Fork: Trenton, Mo	20	26	27	22.4	26
Grand:					
Gallatin, Mo	20	21	24	30.7	23
		25	27	26.0	26
Chillicothe, Mo	18	20	30	30.8	27
Brunswick, Mo	12	12	(2)	21.8	29
Osage:					
Osceola, Mo	20	20	24	23.4	22
		25	28	21.6	26
Warsaw, Mo				33.1	18
Lakeside, Mo	60	17	30	62.4	19
St. Thomas, Mo	23	19	28	27.2	21
				26.7	27
Gasconade: Jerome, Mo	15	20	21	17.1	20
Missouri:					
Blair, Nebr	18	9	12	19.4	10–11
Omaha, Nebr	19			18.3	11
Nebraska City, Nebr	15	6	25	18.4	22
		29	30	16.0	29
St. Joseph, Mo	17	23	26	17.1	24
Kansas City, Mo	22	20	29	24.2	22
Lexington, Mo	18	5	5	18.0	5
		8	(2)	24.3	27
Waverly, Mo	18	13	(2)	21.8	27
Boonville, Mo	21	22	(2)	27.5	29
Jefferson City, Mo	23	22	(2)	29.6	28
Hermann, Mo	21	19	(2)	29.4	28
St. Charles, Mo	25	15	17	25.3	16
		19	(2)	34.8	29

FLOOD-STAGE REPORT FOR JUNE 1942—Continued

River and Station	Flood stage	Above flood stages—dates From—	To—	Crest Stage	Date
MISSISSIPPI SYSTEM—continued					
Ohio Basin	*Feet*			*Feet*	
West Fork of White: Edwardsport, Ind	12	14	20	15.5	18
		21	30	16.0	24
White:					
Petersburg, Ind	16	23	25	16.4	24
Hazelton, Ind	16	23	26	16.6	24
Arkansas Basin					
Verdigris: Sageeyah, Okla	35	22	27	37.7	25
Cottonwood: Emporia, Kans	20	25	27	23.6	26
Neosho:					
Neosho Rapids, Kans	22	26	27	22.7	26–27
Burlington, Kans	23	20	22	25.8	22
		26	28	25.9	27
Iola, Kans	15	20	22	17.3	21
Chanute, Kans	20	20	23	25.5	21
		25	27	20.7	26
Parsons, Kans	22	21	28	25.4	23, 25
Oswego, Kans	17	21	30	22.1	25
Ft. Gibson, Okla	22	22	27	25.3	26
		27	29	26.6	28
North Canadian:					
Woodward, Okla	5	11	11	5.5	11
Canton, Okla	9	11	11	9.4	11
Canadian: Union City, Okla	6	10	10	7.0	10
Arkansas:					
Arkansas City, Kans	16	19	25	21.8	22
Ralston, Okla	16	22	25	19.1	24
Webbers Falls, Okla	23	22	28	27.4	26
Ft. Smith, Ark	22	23	30	27.2	26
Van Buren, Ark	22	23	30	26.1	27
Ozark, Ark	22	26	26	22.2	26
Dardanelle, Ark	22	25	29	23.5	28
Morrilton, Ark	20	28	28	20.0	28
Red Basin					
Sulphur:					
Hagansport, Tex	36	11	12	37.5	11
		15	19	40.0	16
Naples, Tex	22	17	25	25.9	20
WEST GULF OF MEXICO DRAINAGE					
Elm Fork of Trinity: Carrollton, Tex	6	7	7	7.4	7
		16	17	7.6	16
East Fork of Trinity: Rockwall, Tex	10	7	8	11.2	7
		9	14	13.0	12
		15	19	12.8	17
Trinity:					
Dallas, Tex	28	7	10	31.6	8
		15	19	33.8	16
Rosser, Tex	26	9	22	30.1	19–20
Trinidad, Tex	28	(1)	3	39.0	May 25
		11	27	35.0	23
Long Lake, Tex	40	(1)	3	42.6	May 28
Liberty, Tex	24	(1)	23	28.9	May 14
				26.5	13–16
Rio Grande:					
Mercedes, Tex	21	27	28	21.9	27
Brownsville, Tex	18	27	28	18.3	28
GULF OF CALIFORNIA DRAINAGE					
Colorado Basin					
Roaring Fork: Carbondale, Colo	5	7	9	5.3	7
		11	13	5.8	12
		17	21	5.7	18
Gunnison: Delta, Colo	9	(1)	15	10.4	8
		18	21	9.4	19
PACIFIC SLOPE DRAINAGE					
Kings: Piedra, Calif	10	5	7	10.7	6
		9	18	10.8	10–12
Columbia: Vancouver, Wash	15	12	22	15.8	17–19

[1] Continued from previous month.
[2] Continued into following month.
[3] Records furnished by U. S. Geological Survey.